

## ABSTRACT

Systems and methods are disclosed for using 802.11 based wireless protocols in various energy management applications wherein a host controller uses various types of communication networks to distribute information to an on-premise processor that in turn uses 802.11 based wireless protocols to communicate with various types of end devices, such as utility meters. Various forms of communication are defined between the end device, the on-premise processor, and the energy management host for accomplishing power load control, including determining when to activate or deactivate a load, requesting permission to activate a load, reading usage data, activating or deactivating a meter, and determining rate schedules. A flexible scheme allows control to be shifted to be resident in various entities. The architecture is applicable not only for power load control, but other control type and metering devices.

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